0.2 ml of 1 percent phenolphthalein indicator, and 50 ml of distilled water. Titrate with 0.25 N hydrochloric acid to the disappearance of the pink color. Not less than 25 ml of the hydrochloric acid shall be required to neutralize the sample of diluted 50 percent caustic soda, and not less than 36.5 ml of the hydrochloric acid shall be required to neutralize the sample of diluted 73 percent caustic soda.

One ml of 0.25 N hydrochloric acid equals 0.01 gram of sodium hydroxide (anhydrous).

§ 21.102 Chloroform.

(a) *Odor.* Characteristic odor.

(b) *Specific gravity at 25 °/25 °C.* Not less than 1.400.

§ 21.103 Cinchonidine.

(a) *Melting point.* 208 ° to 210 °C.

(b) *Color.* White powder.

(c) *Taste.* Bitter.

(d) *Test.* A solution of cinchonidine in dilute sulfuric acid shall not have more than a faint blue fluorescence (to distinguish from quinine and quinoidine).

§ 21.104 Citronella oil, natural.

(a) *Java type:*

(1) *Alcohol content (as Geraniol).* Not less than 85 percent by weight.

(2) *Aldehyde content (as Citronellal).* Not less than 30 percent by weight.

(3) *Refractive index at 20 °C.* 1.4660 to 1.4745.

(4) *Specific gravity at 25 °/25 °C.* 0.875 to 0.893.

(5) *Odor.* Characteristic odor.

(b) *Ceylon type:*

(1) *Alcohol content (as Geraniol).* Not less than 55 percent by weight.

(2) *Aldehyde content (as Citronellal).* Not less than 7 percent by weight.

(3) *Refractive index at 20 °C.* 1.4790 to 1.4850.

(4) *Specific gravity at 25 °/25 °C.* 0.891 to 0.904.

(5) *Odor.* Characteristic odor.

§ 21.105 Diethyl phthalate.

(a) *Refractive index at 25 °C.* 1.497 to 1.502.

(b) *Color.* Colorless.

(c) *Odor.* Practically odorless.

(d) *Solubility.* Soluble in 20 parts of 60 percent alcohol.

(e) *Specific gravity at 25 °/25 °C.* 1.115 to 1.118.

(f) *Ester content (as diethyl phthalate).* Not less than 99 percent by weight.

NOTE.— The sample taken for ester determination should be approximately 0.8 gram. The number of ml of 0.5 N potassium hydroxide used in saponification multiplied by 0.05555 indicates the number of grams of ester in the sample taken for assay.

§ 21.106 Ethyl acetate.

(a) *85 percent ester:*

(1) *Acidity (as acetic acid).* Not more than 0.015 percent by weight.

(2) *Color.* Colorless.

(3) *Odor.* Characteristic odor.

(4) *Ester content.* Not less than 85 percent by weight.

(5) *Specific gravity at 20 °/20 °C.* Not less than 0.882.

(6) *Distillation range.* (For applicable ASTM method, see 1980 Annual Book of ASTM Standards, Part 29, page 70, Standard No. D 302–58 (1975); for incorporation by reference, see §21.6(b).) When 100 ml of ethyl acetate are distilled by this method, none shall distill below 70 °C., not more than 10 ml shall distill below 72 °C., and none above 80 °C.

(b) *100 percent ester:*

(1) *Acidity (as acetic acid).* Not more than 0.010 percent by weight.

(2) *Color.* Colorless.

(3) *Odor.* Characteristic odor.

(4) *Ester content.* Not less than 99 percent by weight.

(5) *Specific gravity at 20 °/20 °C.* Not less than 0.899.

(6) *Distillation range.* (For applicable ASTM method, see 1980 Annual Book of ASTM Standards, Part 29, page 433, Standard No. D 3127–77; for incorporation by reference, see §21.6(b).) When 100 ml of ethyl acetate are distilled by this method, not more than 2 ml shall distill below 75 °C., and none above 80 °C. (760 mm).

§ 21.107 Ethyl ether.

(a) *Odor.* Characteristic odor.

(b) *Specific gravity at 15.56 °/15.56 °C.* Not more than 0.728.

§ 21.108 Gasoline.

(a) *Distillation range.* When 100 ml of gasoline are distilled, none shall distill below 90 °F. Not more than 5 ml shall be collected below 140 °F., and not less than 50 ml shall distill below 230 °F.

(b) *Odor.* Characteristic odor.